Date: Fri, 17 Dec 93 04:30:10 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #145
To: Ham-Ant

Ham-Ant Digest Fri, 17 Dec 93 Volume 93 : Issue 145

Today's Topics:

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

Date: 16 Dec 93 17:18:30 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Antenna Tuner Questions
To: ham-ant@ucsd.edu

Andrew Thomason (andrew@pmms.cam.ac.uk) wrote:

: How do you obtain a variable
: capacitor with neither side grounded? Do you use an ordinary
: variable capacitor with its body (and shaft) physically isolated
: from ground, or do there exist special types with neither side
: of the capacitor connected to chassis?

(It wasn't a stupid question, so I deleted that part ;-)
You can put an insulated coupling on the shaft. I've also
seen ones whose shaft has built-in insulation. Using this
technique, it's even possible to build multi-section variables
with moderately well isolated sections.

I have one variable which must be nearly the ultimate in caps
for an application like Alan described: it has two sets of
circular plates. Each set is attached to a shaft at the edge
of the stack. The shafts are parallel but separated by a
bit less than the diameter of the plates. The thing is
gear-driven, so the sets fully mesh at one extreme, and are
completely separate at the other. The gears and the mounting
plate for the shafts are insulated, and there is a wiping contact
on each shaft. The result is a cap isolated pretty well from
ground, balanced to ground, and capable of a very wide range
from min to max (a bit over 100:1 in this particular case).

73, K7ITM

Date: 16 Dec 93 22:13:51 GMT
From: ogicse!hp-cv!sdd.hp.com!col.hp.com!srgenprp!alanb@network.ucsd.edu
Subject: Antenna Tuner Questions
To: ham-ant@ucsd.edu

Andrew Thomason (andrew@pmms.cam.ac.uk) wrote:

: How do you obtain a variable
: capacitor with neither side grounded? Do you use an ordinary
: variable capacitor with its body (and shaft) physically isolated
: from ground, or do there exist special types with neither side
: of the capacitor connected to chassis?

The most common way is to mount the capacitor on insulated posts and
use an insulated coupling between the shaft and front-panel knob.

AL N1AL

Date: Tue, 14 Dec 1993 23:28:40 GMT
From: nwnexus!ole!ssc!tad@uunet.uu.net
Subject: Base Station Cellular Antennas
To: ham-ant@ucsd.edu

Anyone have any recommendations for cellphone antennas when they
are installed in a base station?

I'm trying to figure out the best all around solution when we have
a cellular transceiver (similar to the Tellular units) installed
in heavily steel reinforced concrete buildings....specifically

telephone company central office switches.

(you may well wonder why, if we are INSIDE a local telephone
exchange, we would need cellular service, but that is another
rather complex story)

In some cases this gear may be installed in the basement. I'm
hoping that in some installations, a rubber duckie sticking
out of the back of our box may be adequate for reaching the
local cell site. In others, I am hoping that a 1/4 or 1/2 wave
whip clamped to some overheard cable ducts may to do the trick.
In others we may have to actually go outside the building,
which I want to avoid because of telco concerns about lightning
in these installations.

Anyone have any knowledge of similar installations, like maybe
those alarm systems that use cellular? Any antenna recommendations
for easy installations?

If you email, send to 3991080@mcimail.com

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tad@ssc.com (if it bounces, use 3288544@mcimail.com)| [put "attn Box #215"
Tad Cook | Packet Amateur Radio: | Home Phone: | on fax or cover pg!]
Seattle, WA | KT7H @ N7DUO.WA.USA.NA | 206-527-4089 | FAX: 206-525-1791

Date: 16 Dec 93 22:11:57 GMT
From: ogicse!hp-cv!sdd.hp.com!col.hp.com!srgenprp!alanb@network.ucsd.edu
Subject: Designing a Yagi. An Algorithm ?
To: ham-ant@ucsd.edu

elendir@enst.fr wrote:

: I know some now PD programs help you designing Yagi antennae (e.g. the
: excellent Yagimax). Since I have no PC at home, I was wondering if anybody
: were aware of the algorithm used by those utilities, in order to write a
: version for my own computer.

: Were can I find such info ?

The book "Yagi Antennas" by Lawson gives the required information to get
you started, assuming you are very math- and computer-literate. I believe
you can get it from the ARRL.

AL N1AL

Date: Thu, 9 Dec 1993 13:02:59 GMT
From: netcomsv!netcom.com!greg@decwrl.dec.com
Subject: Mag North Vs True North
To: ham-ant@ucsd.edu

In article <171480001@hpcuhe.cup.hp.com> donh@hpcuhe.cup.hp.com (Don Hay) writes:
> Greetings fellow Hams.......
>
>While checking a beam heading the other night, the following question
>came to mind. In San Jose, where I live, Magnetic North is 16 degrees
>east of true north. If my beam heading is 'true north', will the RF
>be squed by the fact that magnetic north is to the east? In other words,
>does the magnetic properties of the earth cause signal squing problems?
>Don't think this is really a problem as the beam pattern is quite spread
>at a distance anyway. I just found this to be an interesting thought!
>
>Anyone care to comment?

And of course the related, but equally puzzling question; if everyone
comes home at night and turns on their television at prime-time, does
the signal get weaker in fringe areas because of the number of receivers
which are now consuming more microvolts of signal close in?

Greg

Date: 16 Dec 93 23:03:27 GMT
From: ogicse!uwm.edu!cs.utexas.edu!howland.reston.ans.net!spool.mu.edu!
news.nd.edu!mac05@network.ucsd.edu
Subject: More Antenna Tuner Questions
To: ham-ant@ucsd.edu

I've enjoyed the recent postings on antenna tuner designs, and wonder
whether anyone could indicate how they apply to tuners available
commercially? Are most of these designs not pi tuners? Any significant
differences between brands? Does investing in one of the more expensive
models really pay off? I've been thinking about trying out out the MFJ
differential T tuner.

End of Ham-Ant Digest V93 #145
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